

COTTON INSECT LOSSES 1996

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This report is sponsored in part by a grant from the Cotton Foundation.

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Virginia	---	Dr. Ames Herbert

Background

This information was provided by state coordinators and was collected from surveys of county agents, extension specialists, private consultants and research entomologists. **All data are averaged over a total reporting unit**, state, etc. For example, if a unit report represents 100 acres and an 8% loss on 25 of these acres, then in the table summary this shows up as a 2% loss. $((.08 \times 25)/100)$. This type of averaging is used for all data reported including yields and costs of control. Because of averaging and rounding some individual state summary numbers listed as '0' are slightly larger. Cost are averaged to the nearest cent, bales and acres to the nearest whole number, other numbers are rounded to the nearest .001. Bales are calculated at 480 pounds, and a cost of \$0.70 per pound of lint is used in figuring costs.

Highlights

Arthropod pests reduced overall yield by 6.61% in 1996. The bollworm/budworm complex was still the number one pest in the U.S. with a yield reduction of 2.37%. Seventy-seven percent (77%) of the U.S. cotton acreage was infested with bollworm/budworm in 1996, requiring 1.3

applications of insecticide per acre. These numbers are down and are influenced by the 1.86 million acres of Bt cotton which was planted in 1996. Only 54% of U.S. cotton was infested by boll weevil, yet it remains the strong number 2 pest at 1.86% yield reduction. *Lygus* (0.68%), aphids (0.48%), and thrips (0.40%) complete the rogues gallery for the top five insects of 1996. Total cost of management and loss to insects to the 1996 crop was \$1.2 billion or \$89.68 per acre. Of those costs approximately \$45 are direct insect management costs and the other \$44 is loss in yield.

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Table A1 **USDA Cotton Production Estimates** Cotton insect losses -1996

State	upland Cotton		Est. Yield *	Cotton yields pounds per acre		
	Acres Planted	Acres harvested		November	January	1995
Alabama	540000	578000	776	699	723	409
Arizona	357000	355900	1141	1170	1137	1008
Arkansas	1100000	990000	772	776	776	635
California	1165000	1595000	1151	1206	1151	951
Florida	100000	99000	672	672	582	472
Georgia	1350000	1345000	749	698	749	625
Kansas	4500	4000		311	408	185
Louisiana	890000	885000	701	664	705	614
Mississippi	1120000	1100000	853	839	807	622
Missouri	390000	385000	725	711	748	544
New Mexico	74000	72000	816	720	773	608
North Carolina	721000	710000	670	660	669	479
Oklahoma	290000	240000	300	270	260	187
South Carolina	284000	282000	820	779	791	528
Tennessee	540000	530000	620	600	610	527
Texas	5737000	4036000	473	498	524	375
Virginia	103000	102000	710	706	753	620
total US	14765500	13308900	692	691	709	537
	Pima	Pima		Pima	Pima	Pima
Arizona	42000	39900		818	836	720
California	165000	165000		1193	1109	937
New Mexico	14000	17000		734	686	605
Texas	37000	40000		756	800	756
total US	258000	261900		1039	998	836
	all cotton	all cotton		all cotton	all cotton	all cotton
TOTAL US	15023500	13570800		698	709	539

From USDA Agricultural Statistics Service, January, 1997 *estimates from losses Coordinators

Table A2 **At Planting Insecticide Applications** Cotton insect losses-1996

State	Number of acres	Cost per Acre	Total Cost
Alabama, North	196000	\$11.00	\$2,156,000
Alabama, Central	69000	\$11.50	\$793,500
Alabama, South	277000	\$11.50	\$3,185,500
Arizona	105726	\$8.53	\$901,843
Arkansas, Northeast	535000	\$9.60	\$5,136,000
Arkansas, Southeast	344000	\$9.50	\$3,268,000
California	100000	\$9.00	\$900,000
Florida	99000	\$7.45	\$737,550
Georgia	1200000	\$11.00	\$13,200,000
Louisiana	613134.16	\$11.31	\$6,934,547
Mississippi	768000	\$10.00	\$7,680,000
Missouri	283800	\$12.00	\$3,405,600
New Mexico	9900	\$4.50	\$44,550
North Carolina	673000	\$13.00	\$8,749,000
Oklahoma	208000	\$4.00	\$832,000
South Carolina	280000	\$16.00	\$4,480,000
Tennessee	154231	\$6.67	\$1,028,721
Texas, North Central	20000	\$7.00	\$140,000
Texas, Rolling Plains	10000	\$8.85	\$88,500
Texas, High Plains	1545600	\$6.55	\$10,123,680
Texas, Coastal Bend	105892	\$5.81	\$615,233
Texas, Southern Rolling Plains	21000	\$4.00	\$84,000
Texas, Lower Rio Grande	20000	\$7.00	\$140,000
Texas, South Central	170000	\$5.25	\$892,500
Texas, Far West	100	\$12.00	\$1,200
Virginia	103000	\$14.00	\$1,442,000
Total US	7911383	\$9.73	\$76,959,923

Table A3 **Boll Weevil Eradication Costs** Cotton insect losses-1996

State	Number of acres	Cost per Acre	Total Cost
Alabama, North	196000	\$21.54	\$4,221,840
Alabama, Central	72000	\$27.50	\$1,980,000
Alabama, South	292000	\$8.00	\$2,336,000
Arizona	364000	\$1.79	\$651,560
Arkansas	0	0	\$0
California	0	0	\$0
Florida	100000	\$5.00	\$500,000
Georgia	1345000	\$5.50	\$7,397,500
Louisiana	0	0	\$0
Mississippi	36000	\$15.00	\$540,000
Missouri	0	0	\$0
New Mexico	0	0	\$0
North Carolina	716000	\$3.85	\$2,756,600
Oklahoma	0	0	\$0
South Carolina	290000	\$4.50	\$1,305,000
Tennessee	7500	\$13.86	\$103,950
Texas, N/C Rolling Plains	257460	\$5.00	\$1,287,300
Texas, High Plain	2420000	\$4.62	\$11,180,400
Texas, Coastal Plains	392193	\$11.50	\$4,510,220
Texas, S. Rolling Plain	320000	\$8.00	\$2,560,000
Virginia	103000	\$3.80	\$391,400
Total US	6911153	\$6.04	\$41,721,770

Table A4 **Bt Cotton costs by state** Cotton insect losses - 1996

State	Number of acres	Bt cost per Acre	Seed premium Cost	Total Cost
Alabama	416600	\$32	\$2.00	\$14,164,400
Arizona	75000	\$32	\$6.00	\$2,850,000
Arkansas NE	6500	\$32	\$9.36	\$268,840
Arkansas SE	151000	\$32	\$7.82	\$6,012,820
California	0	\$32	\$0.00	\$0
Florida	43000	\$32	\$0.00	\$1,376,000
Georgia	400000	\$32	\$1.00	\$13,200,000
Louisiana	129367	\$32	\$1.00	\$4,269,111
Mississippi	395037	\$32	\$1.00	\$13,036,221
Missouri	200	\$32	\$6.00	\$7,600
New Mexico	450	\$32	\$0.00	\$14,400
North Carolina	43000	\$32	\$1.45	\$1,438,350
Oklahoma	16000	\$32	\$4.40	\$582,400
South Carolina	40000	\$32	\$6.00	\$1,520,000
Tennessee	5900	\$32	\$2.00	\$200,600
Texas, Coastal Bend	24000	\$32	\$1.20	\$796,800
Texas, Far West	5700	\$32	\$8.00	\$228,000
Texas, High Plains	240	\$32	\$8.00	\$9,600
Texas, lower Rio Grande	10000	\$32		\$320,000
Texas, N Central	6000	\$32	\$1.75	\$202,500
Texas, Rolling Plains	100	\$32	\$4.00	\$3,600
Texas, south Central	58000	\$32		\$1,856,000
Texas, South Rolling Plain	25000	\$32	\$5.00	\$925,000
Virginia	0	\$32	\$0.00	\$0
Total US	1851094	\$32	\$1.45	\$63,282,242

State	% Treated by air	Cost/Acre by air	% Treated by ground	Cost/Acre by ground
Alabama, North	35.0	\$2.75	65.0	\$2.15
Alabama, Central	2.1	\$3.00	2.8	\$2.50
Alabama, South	5.5	\$3.00	12.7	\$2.50
Arizona	90.0	\$5.00	100.0	\$6.00
Arkansas, Northeast	65.0	\$2.90	37.0	\$2.00
Arkansas, Southeast	98.0	\$2.62	90.0	\$2.25
California, San Joaquin Valley	50.0	\$6.25	80.0	\$10.00
Florida	50.0	\$3.25	50.0	\$2.80
Georgia	50.0	\$3.25	70.0	\$3.00
Louisiana	76.6	\$2.75	55.2	\$1.71
Mississippi Delta	90.0	\$2.75	90.0	\$1.80
Mississippi Hills	75.0	\$2.75	90.0	\$1.50
Missouri	36.0	\$3.75	37.0	\$3.50
New Mexico	95.0	\$11.00	11.0	\$7.00
North Carolina	35.0	\$4.75	80.0	\$3.25
Oklahoma	80.0	\$3.00	20.0	\$2.50
South Carolina	50.0	\$3.75	60.0	\$3.50
Tennessee	21.0	\$3.16	85.6	\$2.21
Texas, Coastal Bend	35.0	\$3.00	65.0	\$2.50
Texas, Far West	85.0	\$4.00	15.0	\$3.50
Texas, High Plains	66.7	\$3.75	33.3	\$3.25
Texas, Lower Rio Grande	35.0	\$3.00	46.0	\$2.10
Texas, North Central	20.0	\$2.75	80.0	\$2.50
Texas, Rolling Plains	28.0	\$3.50	22.0	\$1.00
Texas, South Central	55.0	\$3.25	45.0	\$2.75
Texas, South Rolling Plains	80.0	\$4.00	30.0	\$3.00
Virginia	10.0	\$6.50	90.0	\$5.50
US AVERAGE	56.6	\$3.68	56.8	\$3.66

PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost
Boll Weevils	7151457	4194799	1.369	\$5.80	\$7.94	1.856	489701
Boll/budworms	10249473	6269592	1.318	\$9.83	\$12.96	2.368	624826
Cotton Fleahoppers	3015621	690582	0.054	\$5.09	\$0.27	0.096	25280
Lygus	5973358	3065442	0.569	\$10.55	\$6.00	0.681	179648
Cotton Leaf perforators	263253	6000	0.001	\$0.31	\$0.00	0.004	1045
Pink Bollworms	485816	230359	0.056	\$10.81	\$0.61	0.177	46684
Spider Mites	1717013	623215	0.087	\$21.47	\$1.87	0.107	28239
Thrips, early season	9215158	2332007	0.187	\$5.07	\$0.95	0.399	105303
Beet Armyworms	2256222	317252	0.024	\$10.79	\$0.26	0.084	22236
Fall Armyworms	1547723	235195	0.023	\$11.95	\$0.27	0.101	26589
European Cornborers	746950	1850	0.000	\$8.70	\$0.00	0.017	4575
Stink Bugs	2313405	235523	0.021	\$6.87	\$0.15	0.139	36669
Grasshoppers	213985	23150	0.002	\$5.37	\$0.01	0.010	2587
Saltmarsh Caterpillars	474914	20587	0.001	\$4.38	\$0.00	0.001	179
Aphids	9269001	1889161	0.169	\$9.01	\$1.52	0.480	126713
Bandedwing Whiteflies	2198444	16331	0.001	\$5.96	\$0.01	0.000	17
Sweet Potato Whiteflies	714998	350300	0.060	\$27.17	\$1.62	0.062	16304
Soybean Loopers	898803	47062	0.003	\$8.59	\$0.03	0.001	379
Cabbage Loopers	1442327	52189	0.004	\$8.55	\$0.03	0.022	5774
Western Flower Thrips	3026340	9000	0.001	\$5.60	\$0.00	0.002	486
Cutworms	801846	328533	0.023	\$3.45	\$0.08	0.005	1402
Percent Lost:	6.61		est. Yield per acre:	692		Foliar insecticide	\$34.59
Total Acres:	13256988					At planting insecticides	\$5.81
Total Acres Harvested:	13052264		Total cost and loss insect related:	\$1,188,911,465		Bt use license fees	\$1.92
Total Bales Lost:	1744636		Total cost + Loss/acre:	\$89.68		eradication	\$3.15
Bales lost in \$\$\$:	\$586,197,691					TOTAL	\$45.46

Table 2.		ALABAMA				Cotton insect losses - 1996	
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost
Boll Weevils	20000	16857	0.105	\$5.80	\$0.61	0.000	0
Boll/budworms	560000	61500	0.132	\$7.64	\$1.01	3.130	33727
Cotton Fleahoppers	33000	500	0.001	\$5.50	\$0.00	0.000	0
Lygus	241000	178000	0.261	\$4.06	\$1.06	0.745	8023
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0
Spider Mites	0	0	0.000	\$0.00	\$0.00	0.000	0
Thrips, early season	560000	25000	0.045	\$2.64	\$0.12	0.035	377
Beet Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0
Fall Armyworms	472000	30000	0.107	\$14.00	\$1.50	0.655	7061
European Cornborers	3000	0	0.000	\$0.00	\$0.00	0.000	0
Stink Bugs	430000	25000	0.045	\$6.00	\$0.27	0.610	6572
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0
Saltmarsh Catepillars	0	0	0.000	\$0.00	\$0.00	0.000	0
Aphids	160000	3000	0.005	\$8.90	\$0.05	0.029	308
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0
Western Flower Thrips	196000	9000	0.016	\$5.60	\$0.09	0.000	0
Cutworms	58000	6500	0.012	\$6.93	\$0.08	0.009	96
Percent Lost:	5.21		est. Yield per acre:	776		Foliar insecticide	Cost / Acre:
Total Acres:	560000					At planting insecticides	\$4.79
Total Acres Harvested:	560000	Total cost and loss insect related:		\$50,389,764		Bt use license fees	\$10.96
Total Bales Lost:	56164	Total cost + Loss/acre:		\$89.98		eradication	\$25.29
Bales lost in \$\$\$:	\$18,871,152					TOTAL	\$56.28

Table 3.		CENTRAL ALABAMA				Cotton insect losses - 1996	
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost
Boll Weevils	0	0	0.000	\$0.00	\$0.00	0.000	0
Boll/budworms	72000	1500	0.021	\$8.50	\$0.18	2.000	2550
Cotton Fleahoppers	3000	500	0.007	\$5.50	\$0.04	0.000	0
Lygus	25000	3000	0.042	\$5.50	\$0.23	0.347	443
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0
Spider Mites	0	0	0.000	\$0.00	\$0.00	0.000	0
Thrips, early season	72000	2000	0.028	\$2.50	\$0.07	0.000	0
Beet Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0
Fall Armyworms	30000	0	0.000	\$0.00	\$0.00	0.000	0
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0
Stink Bugs	70000	5000	0.069	\$6.00	\$0.42	1.944	2479
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0
Saltmarsh Catepillars	0	0	0.000	\$0.00	\$0.00	0.000	0
Aphids	0	0	0.000	\$0.00	\$0.00	0.000	0
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0
Cutworms	0	0	0.000	\$0.00	\$0.00	0.000	0
Percent Lost:	4.29		est. Yield per acre:	750		Foliar insecticide	Cost/Acre
Total Acres:	72000					At planting insecticides	\$0.93
Total Acres Harvested:	72000	Total cost and loss insect related:		\$6,923,050		Bt use license fees	\$11.02
Total Bales Lost:	5472	Total cost + Loss/acre:		\$96.15		eradication	\$31.17
Bales lost in \$\$\$:	\$1,838,550					TOTAL	\$27.50
							\$70.62

Table 4.		NORTH ALABAMA				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	20000	16857	0.301	\$5.80	\$1.75	0.000	0	
Boll/budworms	196000	35000	0.179	\$7.70	\$1.38	2.250	8370	
Cotton Fleahoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Lygus	196000	160000	0.653	\$3.90	\$2.55	2.000	7440	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	0	0	0.000	\$0.00	\$0.00	0.000	0	
Thrips, early season	196000	15000	0.077	\$3.00	\$0.23	0.100	372	
Beet Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Fall Armyworms	150000	0	0.000	0	\$0.00	0.383	1423	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	160000	0	0.000	\$0.00	\$0.00	0.008	30	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	160000	3000	0.015	\$8.90	\$0.14	0.082	304	
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	196000	9000	0.046	\$5.60	\$0.26	0.000	0	
Cutworms	50000	5500	0.028	\$6.65	\$0.19	0.026	95	
Percent Lost:	4.85		est. Yield per acre:	780		Foliar insecticide	Cost/Acre	
Total Acres:	196000					At planting insecticides	\$6.48	
Total Acres Harvested:	196000	Total cost and loss insect related:		\$19,371,365		Bt use license fees	\$11.00	
Total Bales Lost:	18034	Total cost + Loss/acre:		\$98.83		eradication	\$28.90	
Bales lost in \$\$\$:	\$6,059,553					TOTAL	\$21.54	
							\$67.92	

Table 5.		SOUTH ALABAMA				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	0	0	0.000	\$0.00	\$0.00	0.000	0	
Boll/budworms	292000	25000	0.128	\$7.50	\$0.96	4.000	23117	
Cotton Fleahoppers	30000	0	0.000	\$0.00	\$0.00	0.000	0	
Lygus	20000	15000	0.051	\$5.50	\$0.28	0.000	0	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	0	0	0.000	\$0.00	\$0.00	0.000	0	
Thrips, early season	292000	8000	0.027	\$2.00	\$0.05	0.000	0	
Beet Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Fall Armyworms	292000	30000	0.205	\$14.00	\$2.88	1.000	5779	
European Cornborers	3000	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	200000	20000	0.068	\$6.00	\$0.41	0.685	3958	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	0	0	0.000	\$0.00	\$0.00	0.000	0	
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	8000	1000	0.003	\$8.50	\$0.03	0.000	0	
Percent Lost:	5.68		est. Yield per acre:	780		Foliar insecticide	Cost/Acre	
Total Acres:	292000					At planting insecticides	\$4.62	
Total Acres Harvested:	292000	Total cost and loss insect related:		\$24,164,750		Bt use license fees	\$10.91	
Total Bales Lost:	32854	Total cost + Loss/acre:		\$82.76		eradication	\$21.42	
Bales lost in \$\$\$:	\$11,039,000					TOTAL	\$8.00	
							\$44.95	

Table 6.		ARIZONA			Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost
Boll Weevils	0	0	0.000	\$0.00	\$0.00	0.000	0
Boll/budworms	132000	39000	0.241	\$12.25	\$2.95	0.000	0
Cotton Fleahoppers	291600	50000	0.077	\$7.00	\$0.54	0.000	0
Lygus	324000	163600	1.262	\$20.00	\$25.25	4.750	48094
Cotton Leaf perforators	75000	6000	0.022	\$12.00	\$0.27	0.162	1641
Pink Bollworms	299000	160000	1.728	\$12.00	\$20.74	2.769	28031
Spider Mites	5000	2000	0.009	\$11.00	\$0.10	0.000	0
Thrips, early season	324000	100000	0.309	\$9.00	\$2.78	0.100	1013
Beet Armyworms	300000	2000	0.006	\$15.00	\$0.09	0.093	938
Fall Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0
Stink Bugs	50000	6000	0.019	\$15.00	\$0.28	0.015	156
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0
Saltmarsh Caterpillars	40000	1300	0.004	\$12.50	\$0.05	0.000	0
Aphids	304000	5000	0.015	\$18.00	\$0.28	0.000	0
Bandedwing Whiteflies	324000	0	0.000	\$0.00	\$0.00	0.000	0
Sweet Potato Whiteflies	304000	235000	1.995	\$29.00	\$57.84	2.111	21375
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0
Cutworms	1300	900	0.003	\$11.00	\$0.03	0.000	0
Percent Lost:	10.00		est. Yield per acre:	1141		Foliar insecticide	Cost/Acre
Total Acres:	324000					At planting insecticides	\$111.20
Total Acres Harvested:	324000	Total cost and loss insect related:		\$74449653		Bt use license fees	\$2.78
Total Bales Lost:	101247	Total cost + Loss/acre:		\$229.78		eradication	\$8.80
Bales lost in \$\$\$:	\$34,018,950					TOTAL	\$2.01
							\$124.79

Table 7.		ARKANSAS			Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost
Boll Weevils	835950	572000	2.744	\$6.84	\$18.78	2.626	62155
Boll/budworms	936340	790000	2.297	\$9.01	\$20.70	3.077	72827
Cotton Fleahoppers	225780	800	0.001	\$5.94	\$0.00	0.000	0
Lygus	842900	705120	1.827	\$5.83	\$10.65	2.240	53016
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0
Spider Mites	219900	65380	0.094	\$11.78	\$1.11	0.121	2862
Thrips, early season	858300	389600	0.390	\$5.06	\$1.97	0.833	19721
Beet Armyworms	52000	0	0.000	\$0.00	\$0.00	0.000	0
Fall Armyworms	38500	10000	0.010	\$9.00	\$0.09	0.015	355
European Cornborers	10000	0	0.000	\$0.00	\$0.00	0.000	0
Stink Bugs	100000	3000	0.003	\$7.00	\$0.02	0.010	237
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0
Aphids	767170	200000	0.236	\$6.42	\$1.52	0.347	8209
Bandedwing Whiteflies	218000	0	0.000	\$0.00	\$0.00	0.000	0
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0
Soybean Loopers	182400	8500	0.009	\$12.00	\$0.10	0.000	0
Cabbage Loopers	304800	1200	0.001	\$12.00	\$0.01	0.000	0
Western Flower Thrips	404800	0	0.000	\$0.00	\$0.00	0.000	0
Cutworms	178490	128000	0.128	\$3.62	\$0.46	0.020	472
Percent Lost:	9.29		est. Yield per acre:	772		Foliar insecticide	Cost/Acre
Total Acres:	1000000					At planting insecticides	\$55.41
Total Acres Harvested:	1000000	Total cost and loss insect related:		\$143,969,345		Bt use license fees	\$8.40
Total Bales Lost:	219854	Total cost + Loss/acre:		\$143.97		eradication	\$6.28
Bales lost in \$\$\$:	\$73,871,070					TOTAL	\$0.00
							\$70.10

Table 8.		NORTHEAST ARKANSAS				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	448450	232000	0.889	\$6.25	\$5.56	1.794	23768	
Boll/budworms	536340	390000	1.495	\$8.64	\$12.92	3.129	41455	
Cotton Fleahoppers	34280	300	0.001	\$5.00	\$0.00	0.000	0	
Lygus	442900	305120	0.712	\$5.60	\$3.99	2.067	27386	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	119900	38380	0.112	\$13.81	\$1.55	0.160	2118	
Thrips, early season	458300	229600	0.383	\$5.00	\$1.91	1.222	16193	
Beet Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Fall Armyworms	30000	10000	0.017	\$9.00	\$0.15	0.025	331	
European Cornborers	10000	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	100000	3000	0.005	\$7.00	\$0.04	0.017	221	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	367170	20000	0.033	\$9.33	\$0.31	0.245	3243	
Bandedwing Whiteflies	18000	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	2400	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	124800	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	4800	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	42290	15000	0.025	\$4.50	\$0.11	0.011	140	
Percent Lost:	8.67		est. Yield per acre:	754		Foliar insecticide	Cost/Acre	\$26.53
Total Acres:	600000					At planting insecticides		\$8.56
Total Acres Harvested:	600000	Total cost and loss insect related:		\$59,915,641		Bt use license fees		\$0.45
Total Bales Lost:	114855	Total cost + Loss/acre:		\$99.86		eradication		\$0.00
Bales lost in \$\$\$:	\$38,591,431					TOTAL		\$35.54

Table 9.		SOUTHEAST ARKANSAS				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	387500	340000	5.525	\$7.25	\$40.06	3.875	40365	
Boll/budworms	400000	400000	3.500	\$9.37	\$32.80	3.000	31250	
Cotton Fleahoppers	191500	500	0.001	\$6.50	\$0.01	0.000	0	
Lygus	400000	400000	3.500	\$6.00	\$21.00	2.500	26042	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	100000	27000	0.068	\$8.90	\$0.60	0.063	651	
Thrips, early season	400000	160000	0.400	\$5.15	\$2.06	0.250	2604	
Beet Armyworms	52000	0	0.000	\$0.00	\$0.00	0.000	0	
Fall Armyworms	8500	0	0.000	\$0.00	\$0.00	0.000	0	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	0	0	0.000	\$0.00	\$0.00	0.000	0	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	400000	180000	0.540	\$6.10	\$3.29	0.500	5208	
Bandedwing Whiteflies	200000	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	180000	8500	0.021	\$12.00	\$0.26	0.000	0	
Cabbage Loopers	180000	1200	0.003	\$12.00	\$0.04	0.000	0	
Western Flower Thrips	400000	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	136200	113000	0.283	\$3.50	\$0.99	0.034	355	
Percent Lost:	10.22		est. Yield per acre:	800		Foliar insecticide	Cost/Acre	\$101.09
Total Acres:	400000					At planting insecticides		\$8.17
Total Acres Harvested:	400000	Total cost and loss insect related:		\$85,493,795		Bt use license fees		\$15.03
Total Bales Lost:	106474	Total cost + Loss/acre:		\$213.73		eradication		\$0.00
Bales lost in \$\$\$:	\$35,775,425					TOTAL		\$124.30

Table 10.		CALIFORNIA*				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	0	0	0.000	\$0.00	\$0.00	0.000	0	
Boll/budworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cotton Fleahoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Lygus	800000	500000	0.425	\$30.00	\$12.76	1.361	45000	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	750000	500000	0.851	\$24.00	\$20.42	0.957	31641	
Thrips, early season	0	0	0.000	\$0.00	\$0.00	0.000	0	
Beet Armyworms	100000	50000	0.043	\$12.50	\$0.53	0.000	0	
Fall Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	0	0	0.000	\$0.00	\$0.00	0.000	0	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	750000	100000	0.102	\$40.00	\$4.08	0.638	21094	
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	250000	100000	0.102	\$25.00	\$2.55	0.106	3516	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Percent Lost:	3.06		est. Yield per acre:	1150		Foliar insecticide	Cost/Acre	
Total Acres:	1175555					At planting insecticides	\$40.34	
Total Acres Harvested:	1175555	Total cost and loss insect related:		\$82,345,000		Bt use license fees	\$0.77	
Total Bales Lost:	101250	Total cost + Loss/acre:		\$70.05		eradication	\$0.00	
Bales lost in \$\$\$:	\$34,020,000					TOTAL	\$41.11	

*California - This estimate represents the San Joaquin Valley, only.

Table 11.		FLORIDA				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	0	0	0.000	\$0.00	\$0.00	0.000	0	
Boll/budworms	55000	54000	1.080	\$7.20	\$7.78	3.300	5844	
Cotton Fleahoppers	5000	2000	0.022	\$7.00	\$0.15	0.010	18	
Lygus	10000	540	0.005	\$5.60	\$0.03	0.050	89	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	350	0	0.000	\$0.00	\$0.00	0.000	0	
Thrips, early season	100000	0	0.000	\$0.00	\$0.00	0.000	0	
Beet Armyworms	1000	600	0.012	\$11.25	\$0.14	0.000	0	
Fall Armyworms	17000	12000	0.240	\$15.75	\$3.78	0.085	151	
European Cornborers	400	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	3000	1000	0.010	\$6.14	\$0.06	0.015	27	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	100000	3000	0.030	\$6.00	\$0.18	0.200	354	
Bandedwing Whiteflies	2500	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	1000	300	0.003	\$12.00	\$0.04	0.000	0	
Soybean Loopers	7000	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	1000	0	0.000	\$0.00	\$0.00	0.000	0	
Percent Lost:	3.66		est. Yield per acre:	672		Foliar insecticide	Cost/Acre	
Total Acres:	100000					At planting insecticides	\$12.15	
Total Acres Harvested:	100000	Total cost and loss insect related:		\$6,006,514		Bt use license fees	\$7.38	
Total Bales Lost:	6481	Total cost + Loss/acre:		\$60.07		eradication	\$13.76	
Bales lost in \$\$\$:	\$2,177,700					TOTAL	\$5.00	
							\$38.29	

Table 12.		GEORGIA				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	0	0	0.000	\$0.00	\$0.00	0.000	0	
Boll/budworms	1300000	900000	1.673	\$9.00	\$15.06	1.933	51458	
Cotton Fleahoppers	800000	10000	0.007	\$6.00	\$0.04	0.000	0	
Lygus	600000	25000	0.019	\$6.00	\$0.11	0.000	0	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	20000	0	0.000	\$0.00	\$0.00	0.000	0	
Thrips, early season	1345000	20000	0.015	\$5.00	\$0.07	0.000	0	
Beet Armyworms	400000	125000	0.093	\$8.00	\$0.74	0.297	7917	
Fall Armyworms	400000	150000	0.139	\$12.00	\$1.67	0.297	7917	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	350000	75000	0.056	\$7.00	\$0.39	0.260	6927	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	1000000	10000	0.007	\$7.00	\$0.05	0.000	0	
Bandedwing Whiteflies	100000	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	50000	10000	0.007	\$12.00	\$0.09	0.000	0	
Cabbage Loopers	100000	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	200000	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	50000	5000	0.004	\$7.00	\$0.03	0.000	0	
Percent Lost:	2.79		est. Yield per acre:	749		Foliar insecticide	Cost/Acre	
Total Acres:	1345000					At planting insecticides	\$18.26	
Total Acres Harvested:	1345000	Total cost and loss insect related:		\$83,295,000		Bt use license fees	\$9.81	
Total Bales Lost:	74219	Total cost + Loss/acre:		\$61.93		eradication	\$5.50	
Bales lost in \$\$\$:	\$24,937,500					TOTAL	\$43.39	

Table 13.		LOUISIANA				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	834186	827953	5.524	\$3.50	\$19.33	4.023	67897	
Boll/budworms	836178	816643	3.854	\$11.35	\$43.75	2.285	38567	
Cotton Fleahoppers	163648	58255	0.038	\$2.52	\$0.10	0.015	253	
Lygus	738637	606293	2.444	\$5.54	\$13.54	0.891	15030	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	314791	11828	0.008	\$7.78	\$0.06	0.004	61	
Thrips, early season	853162	425928	0.699	\$3.32	\$2.32	0.650	10962	
Beet Armyworms	115506	37894	0.037	\$9.03	\$0.33	0.004	67	
Fall Armyworms	82148	17045	0.001	\$7.50	\$0.01	0.000	0	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	28855	102	0.000	\$0.00	\$0.00	0.000	0	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	206914	13787	0.009	\$2.75	\$0.02	0.000	0	
Aphids	434903	161144	0.170	\$7.40	\$1.26	0.140	2360	
Bandedwing Whiteflies	61277	6531	0.004	\$4.40	\$0.02	0.000	0	
Sweet Potato Whiteflies	998	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	380403	22862	0.018	\$5.96	\$0.10	0.022	369	
Cabbage Loopers	114625	1995	0.000	\$5.36	\$0.00	0.005	89	
Western Flower Thrips	478930	0	0.000	\$0.00	\$0.00	0.006	93	
Cutworms	166889	138416	0.121	\$2.38	\$0.29	0.015	259	
Percent Lost:	8.06		est. Yield per acre:	701		Foliar insecticide	Cost/Acre	
Total Acres:	870822					At planting insecticides	\$7.96	
Total Acres Harvested:	867622	Total cost and loss insect related:		\$127,556,757		Bt use license fees	\$4.90	
Total Bales Lost:	136005	Total cost + Loss/acre:		\$146.48		eradication	\$0.00	
Bales lost in \$\$\$:	\$45,697,606					TOTAL	\$94.00	

Table 14.		MISSISSIPPI				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	Cost/Acre
Boll Weevils	857000	794000	3.359	\$4.11	\$13.81	2.599	59466	
Boll/budworms	911790	669790	2.174	\$9.09	\$19.76	1.917	43862	
Cotton Fleahoppers	30300	130	0.000	\$3.50	\$0.00	0.000	0	
Lygus	1029790	761764	2.297	\$6.38	\$14.66	1.677	38376	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	168300	11164	0.011	\$12.48	\$0.14	0.008	187	
Thrips, early season	1029000	338000	0.361	\$2.80	\$1.01	0.100	2287	
Beet Armyworms	233000	21300	0.024	\$12.77	\$0.31	0.028	647	
Fall Armyworms	137000	8000	0.008	\$9.63	\$0.07	0.061	1389	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	117000	12500	0.012	\$5.26	\$0.06	0.011	249	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	213000	4000	0.004	\$6.00	\$0.02	0.000	0	
Aphids	1029000	354830	0.389	\$6.53	\$2.54	0.669	15321	
Bandedwing Whiteflies	1029000	9800	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	218000	5700	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	181700	5700	0.006	\$8.05	\$0.04	0.000	0	
Western Flower Thrips	1029000	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	236000	31000	0.032	\$3.59	\$0.12	0.007	157	
Percent Lost:	7.08		est. Yield per acre:	853		Foliar insecticide		\$52.55
Total Acres:	1029790					At planting insecticides		\$7.46
Total Acres Harvested:	1029000	Total cost and loss insect related:		\$129,783,346		Bt use license fees		\$12.66
Total Bales Lost:	161942	Total cost + Loss/acre:		\$126.03		eradication		\$0.52
Bales lost in \$\$\$:	\$54,412,578					TOTAL		\$73.19

Table 15.		MISSISSIPPI DELTA				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	Cost/Acre
Boll Weevils	527000	464000	2.297	\$3.95	\$9.07	1.811	28502	
Boll/budworms	591790	477790	2.504	\$9.84	\$24.64	1.956	30785	
Cotton Fleahoppers	16300	130	0.000	\$3.50	\$0.00	0.000	0	
Lygus	686790	572764	3.086	\$6.58	\$20.30	2.020	31793	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	139300	7664	0.011	\$11.00	\$0.12	0.010	160	
Thrips, early season	686000	184000	0.295	\$2.80	\$0.83	0.100	1572	
Beet Armyworms	150000	6300	0.015	\$11.42	\$0.17	0.022	344	
Fall Armyworms	12000	2000	0.003	\$10.00	\$0.03	0.002	28	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	93000	10000	0.015	\$5.20	\$0.08	0.014	213	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	113000	4000	0.006	\$6.00	\$0.03	0.000	0	
Aphids	686000	302830	0.485	\$6.33	\$3.07	0.789	12419	
Bandedwing Whiteflies	686000	6700	0.010	\$7.00	\$0.07	0.001	16	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	118000	2700	0.004	\$7.00	\$0.03	0.000	0	
Cabbage Loopers	81700	2700	0.004	\$7.00	\$0.03	0.000	0	
Western Flower Thrips	686000	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	116000	23000	0.033	\$3.00	\$0.10	0.005	80	
Percent Lost:	6.73		est. Yield per acre:	880		Foliar insecticide		\$58.57
Total Acres:	686790					At planting insecticides		\$8.20
Total Acres Harvested:	686000	Total cost and loss insect related:		\$88,241,474		Bt use license fees		\$9.90
Total Bales Lost:	105911	Total cost + Loss/acre:		\$128.48		eradication		\$0.00
Bales lost in \$\$\$:	\$35,586,090					TOTAL		\$76.67

Table 16.		MISSISSIPPI HILLS				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	330000	330000	5.484	\$4.34	\$23.80	4.176	29838	
Boll/budworms	320000	192000	1.511	\$7.23	\$10.93	1.838	13133	
Cotton Fleahoppers	14000	0	0.000	\$0.00	\$0.00	0.000	0	
Lygus	343000	189000	0.716	\$5.78	\$4.14	0.990	7074	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	29000	3500	0.010	\$15.73	\$0.16	0.004	30	
Thrips, early season	343000	154000	0.494	\$2.80	\$1.38	0.100	715	
Beet Armyworms	83000	15000	0.044	\$13.34	\$0.58	0.041	294	
Fall Armyworms	125000	6000	0.017	\$9.51	\$0.17	0.029	208	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	24000	2500	0.007	\$5.50	\$0.04	0.006	40	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	100000	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	343000	52000	0.197	\$7.67	\$1.51	0.430	3073	
Bandedwing Whiteflies	343000	3100	0.009	\$7.00	\$0.06	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	100000	3000	0.009	\$9.00	\$0.08	0.000	0	
Cabbage Loopers	100000	3000	0.009	\$9.00	\$0.08	0.000	0	
Western Flower Thrips	343000	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	120000	8000	0.030	\$5.30	\$0.16	0.011	75	
Percent Lost:	7.62		est. Yield per acre:	800		Foliar insecticide	Cost/Acre	
Total Acres:	343000					At planting insecticides	\$43.09	
Total Acres Harvested:	343000	Total cost and loss insect related:		\$41,913,595		Bt use license fees	\$5.98	
Total Bales Lost:	54480	Total cost + Loss/acre:		\$122.20		eradication	\$18.18	
Bales lost in \$\$\$:	\$18,305,280					TOTAL	\$1.57	
							\$68.83	

Table 17.		MISSOURI				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	400000	40000	0.093	\$9.00	\$0.84	0.093	833	
Boll/budworms	180000	60000	0.140	\$12.00	\$1.67	1.256	11250	
Cotton Fleahoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Lygus	100000	20000	0.047	\$11.00	\$0.51	0.047	417	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	5000	0	0.000	\$0.00	\$0.00	0.000	1	
Thrips, early season	430000	283200	0.659	\$10.00	\$6.59	2.000	17917	
Beet Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Fall Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	0	0	0.000	\$0.00	\$0.00	0.000	0	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	430000	0	0.000	\$0.00	\$0.00	0.010	90	
Bandedwing Whiteflies	430000	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Percent Lost:	3.41		est. Yield per acre:	725		Foliar insecticide	Cost/Acre	
Total Acres:	430000					At planting insecticides	\$9.61	
Total Acres Harvested:	410000	Total cost and loss insect related:		\$17,795,650		Bt use license fees	\$7.92	
Total Bales Lost:	30507	Total cost + Loss/acre:		\$41.39		eradication	\$0.02	
Bales lost in \$\$\$:	\$10,250,450					TOTAL	\$0.00	
							\$17.55	

Table 18.		NEW MEXICO				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	57000	9450	0.192	\$6.50	\$1.25	0.616	1076	
Boll/budworms	49500	12375	0.334	\$11.00	\$3.68	6.020	10516	
Cotton Fleahoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Lygus	12500	3125	0.042	\$11.00	\$0.46	0.169	295	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	42050	19400	0.786	\$11.00	\$8.65	4.546	7940	
Spider Mites	0	0	0.000	\$0.00	\$0.00	0.000	0	
Thrips, early season	39600	0	0.000	\$0.00	\$0.00	1.070	1869	
Beet Armyworms	1600	500	0.010	\$20.50	\$0.21	0.032	57	
Fall Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	6600	434	0.006	\$10.00	\$0.06	0.009	16	
Grasshoppers	11485	1000	0.014	\$10.00	\$0.14	0.016	27	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	19400	5820	0.079	\$11.00	\$0.87	0.393	687	
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	600	0	0.000	\$0.00	\$0.00	0.000	0	
Percent Lost:	12.87		est. Yield per acre:	773		Foliar insecticide	Cost/Acre	\$15.31
Total Acres:	74000					At planting insecticides		\$0.60
Total Acres Harvested:	72000	Total cost and loss insect related:		\$8,745,992		Bt use license fees		\$0.19
Total Bales Lost:	22483	Total cost + Loss/acre:		\$118.19		eradication		\$0.00
Bales lost in \$\$\$:	\$7,554,345					TOTAL		\$16.10

Table 19.		NORTH CAROLINA				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	0	0	0.00	\$0.00	\$0.00	0.000	0	
Boll/budworms	716000	710000	3.07	\$9.40	\$28.90	5.200	116350	
Cotton Fleahoppers	0	0	0.00	\$0.00	\$0.00	0.000	0	
Lygus	716000	4000	0.01	\$7.25	\$0.04	0.000	0	
Cotton Leaf perforators	0	0	0.00	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.00	\$0.00	\$0.00	0.000	0	
Spider Mites	0	0	0.00	\$0.00	\$0.00	0.000	0	
Thrips, early season	716000	60000	0.09	\$5.70	\$0.53	0.200	4475	
Beet Armyworms	0	0	0.00	\$0.00	\$0.00	0.000	0	
Fall Armyworms	0	0	0.00	\$0.00	\$0.00	0.000	0	
European Cornborers	716000	500	0.00	\$9.40	\$0.01	0.000	0	
Stink Bugs	716000	4000	0.01	\$9.20	\$0.05	0.800	17900	
Grasshoppers	0	0	0.00	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.00	\$0.00	\$0.00	0.000	0	
Aphids	716000	1000	0.00	\$5.25	\$0.01	0.000	0	
Bandedwing Whiteflies	0	0	0.00	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.00	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.00	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	0	0	0.00	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	0	0	0.00	\$0.00	\$0.00	0.000	0	
Cutworms	10000	2000	0.00	\$4.00	\$0.01	0.028	625	
Percent Lost:	6.23		est. Yield per acre:	670		Foliar insecticide	Cost/Acre	\$29.54
Total Acres:	716000					At planting insecticides		\$12.22
Total Acres Harvested:	708000	Total cost and loss insect related:		\$80,914,900		Bt use license fees		\$2.01
Total Bales Lost:	139350	Total cost + Loss/acre:		\$113.01		eradication		\$3.85
Bales lost in \$\$\$:	\$46,821,600					TOTAL		\$47.62

Table 20.		OKLAHOMA				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	235000	185000	2.846	\$6.00	\$17.08	6.779	15605	
Boll/budworms	260000	150000	1.731	\$11.50	\$19.90	3.250	7482	
Cotton Fleahoppers	260000	100000	0.385	\$6.00	\$2.31	0.250	576	
Lygus	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	0	0	0.000	\$0.00	\$0.00	0.000	0	
Thrips, early season	260000	50000	0.192	\$4.75	\$0.91	0.250	576	
Beet Armyworms	50000	3000	0.012	\$12.50	\$0.14	0.096	221	
Fall Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	0	0	0.000	\$0.00	\$0.00	0.000	0	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	150000	100000	0.769	\$6.75	\$5.19	1.154	2656	
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Percent Lost:	11.78		est. Yield per acre:	300		Foliar insecticide	Cost/Acre	
Total Acres:	260000					At planting insecticides	\$45.54	
Total Acres Harvested:	220000		Total cost and loss insect related:	\$22,365,337		Bt use license fees	\$3.20	
Total Bales Lost:	27116		Total cost + Loss/acre:	\$86.02		eradication	\$2.24	
Bales lost in \$\$\$:	\$9,110,937					TOTAL	\$0.00	
							\$50.98	

Table 21.		SOUTH CAROLINA				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	0	0	0.000	\$0.00	\$0.00	0.000	0	
Boll/budworms	290000	270000	4.190	\$8.00	\$33.52	5.000	33833	
Cotton Fleahoppers	2000	0	0.000	\$0.00	\$0.00	0.000	0	
Lygus	5000	2000	0.010	\$5.25	\$0.05	0.000	0	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	20000	5000	0.034	\$15.00	\$0.52	0.000	0	
Thrips, early season	280000	50000	0.259	\$6.00	\$1.55	1.931	13067	
Beet Armyworms	5000	2000	0.010	\$16.00	\$0.17	0.000	0	
Fall Armyworms	70000	5000	0.017	\$16.50	\$0.28	0.724	4900	
European Cornborers	15000	1000	0.003	\$7.75	\$0.03	0.000	0	
Stink Bugs	150000	95000	0.491	\$6.75	\$3.32	1.552	10500	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	100000	20000	0.103	\$6.50	\$0.67	0.345	2333	
Bandedwing Whiteflies	7000	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	1000	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	5000	1500	0.008	\$12.00	\$0.09	0.017	117	
Percent Lost:	9.57		est. Yield per acre:	820		Foliar insecticide	Cost/Acre	
Total Acres:	290000					At planting insecticides	\$40.20	
Total Acres Harvested:	290000		Total cost and loss insect related:	\$40,718,875		Bt use license fees	\$15.45	
Total Bales Lost:	64750		Total cost + Loss/acre:	\$140.41		eradication	\$5.24	
Bales lost in \$\$\$:	\$21,756,000					TOTAL	\$4.50	
							\$65.39	

Table 22.		TENNESSEE			Cotton insect losses - 1996			
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	175806	161050	0.944	\$5.70	\$5.38	2.209	22448	
Boll/budworms	104431	57750	0.215	\$10.53	\$2.26	0.846	8593	
Cotton Fleahoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Lygus	155931	45900	0.114	\$5.76	\$0.65	0.694	7050	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	390	143	0.000	\$5.82	\$0.00	0.000	0	
Thrips, early season	161931	82750	0.182	\$3.94	\$0.72	0.983	9986	
Beet Armyworms	300	0	0.000	\$15.60	\$0.00	0.000	0	
Fall Armyworms	1075	150	0.000	\$9.00	\$0.00	0.003	33	
European Cornborers	2050	150	0.000	\$9.00	\$0.00	0.000	0	
Stink Bugs	57750	3294	0.006	\$4.99	\$0.03	0.174	1770	
Grasshoppers	500	150	0.000	\$6.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	38500	725	0.001	\$12.96	\$0.02	0.004	36	
Bandedwing Whiteflies	15667	0	0.000	\$8.30	\$0.00	0.000	3	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	41667	75	0.000	\$13.20	\$0.00	0.001	8	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	3467	2217	0.004	\$6.86	\$0.03	0.000	1	
Percent Lost:	4.91		est. Yield per acre:	620		Foliar insecticide	Cost/Acre	
Total Acres:	537228					At planting insecticides	\$9.10	
Total Acres Harvested:	537228	Total cost and loss insect related:		\$23,000,414		Bt use license fees	\$1.91	
Total Bales Lost:	49929		Total cost + Loss/acre:	\$42.81		eradication	\$0.37	
Bales lost in \$\$\$:	\$16,776,010					TOTAL	\$0.19	
							\$11.59	

Table 23.		TEXAS			Cotton insect losses - 1996			
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	3736501	1506504	1.260	\$6.85	\$8.64	2.973	192881	
Boll/budworms	3815234	1575534	0.655	\$10.52	\$6.89	2.704	175429	
Cotton Fleahoppers	1204293	468897	0.121	\$4.99	\$0.61	0.272	17617	
Lygus	397600	50100	0.011	\$5.80	\$0.07	0.053	3441	
Cotton Leaf perforators	188253	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	144766	50959	0.029	\$7.00	\$0.20	0.251	16253	
Spider Mites	213282	27700	0.006	\$10.18	\$0.07	0.036	2354	
Thrips, early season	2365833	487529	0.128	\$4.65	\$0.60	0.347	22489	
Beet Armyworms	997816	74958	0.018	\$14.26	\$0.26	0.141	9167	
Fall Armyworms	330000	3000	0.001	\$7.50	\$0.01	0.000	0	
European Cornborers	500	200	0.000	\$11.50	\$0.00	0.000	0	
Stink Bugs	303200	10193	0.002	\$6.08	\$0.01	0.001	79	
Grasshoppers	202000	22000	0.006	\$5.15	\$0.03	0.029	1883	
Saltmarsh Caterpillars	15000	1500	0.000	\$7.95	\$0.00	0.002	132	
Aphids	3270028	924642	0.243	\$7.73	\$1.88	0.898	58275	
Bandedwing Whiteflies	11000	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	154000	10000	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	60000	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	699535	43219	0.010	\$8.66	\$0.08	0.064	4168	
Western Flower Thrips	717610	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	91100	13000	0.003	\$7.68	\$0.02	0.000	0	
Percent Lost:	7.77		est. Yield per acre:	473		Foliar insecticide	Cost/Acre	
Total Acres:	4436593					At planting insecticides	\$19.36	
Total Acres Harvested:	4306859	Total cost and loss insect related:		\$291,253,951		Bt use license fees	\$2.72	
Total Bales Lost:	504167		Total cost + Loss/acre:	\$65.65		eradication	\$0.98	
Bales lost in \$\$\$:	\$169,400,167					TOTAL	\$4.40	
							\$27.47	

Table 24.		TEXAS - COASTAL BEND				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	392193	352974	5.400	\$6.50	\$35.10	4.000	29414	
Boll/budworms	313754	156877	0.400	\$9.82	\$3.93	0.800	5883	
Cotton Fleahoppers	392193	196097	0.500	\$4.95	\$2.48	1.000	7354	
Lygus	100000	4500	0.011	\$7.15	\$0.08	0.255	1875	
Cotton Leaf perforators	188253	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	86282	1000	0.003	\$8.00	\$0.02	0.220	1618	
Thrips, early season	392193	58829	0.150	\$4.40	\$0.66	1.000	7354	
Beet Armyworms	380000	15000	0.038	\$17.50	\$0.67	0.969	7125	
Fall Armyworms	275000	0	0.000	\$0.00	\$0.00	0.000	0	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	292000	7843	0.020	\$5.54	\$0.11	0.000	0	
Grasshoppers	100000	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	392193	137268	0.350	\$6.68	\$2.34	4.000	29414	
Bandedwing Whiteflies	4000	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	4000	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	274535	39219	0.100	\$8.40	\$0.84	0.700	5148	
Western Flower Thrips	517610	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	70600	7000	0.018	\$6.34	\$0.11	0.000	0	
Percent Lost:	12.94		est. Yield per acre:	380		Foliar insecticide	Cost/Acre	
Total Acres:	392193					At planting insecticides		\$46.34
Total Acres Harvested:	392193	Total cost and loss insect related:		\$55,280,388		Bt use license fees		\$1.57
Total Bales Lost:	95184	Total cost + Loss/acre:		\$140.95		eradication		\$0.00
Bales lost in \$\$\$:	\$31,981,956					TOTAL		\$11.50
								\$59.41

Table 25.		TEXAS - NORTH CENTRAL				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	85000	50000	1.111	\$6.00	\$6.67	4.722	4604	
Boll/budworms	90000	85000	1.417	\$6.00	\$8.50	2.500	2438	
Cotton Fleahoppers	100000	70000	1.556	\$4.00	\$6.22	1.667	1625	
Lygus	500	250	0.003	\$5.00	\$0.01	0.001	1	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	1000	500	0.006	\$8.00	\$0.04	0.002	2	
Thrips, early season	90000	80000	1.778	\$3.50	\$6.22	0.100	98	
Beet Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Fall Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	0	0	0.000	\$0.00	\$0.00	0.000	0	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	60000	38000	0.422	\$7.00	\$2.96	1.000	975	
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Percent Lost:	9.99		est. Yield per acre:	403		Foliar insecticide	Cost/Acre	
Total Acres:	90000					At planting insecticides		\$30.63
Total Acres Harvested:	90000	Total cost and loss insect related:		\$6,372,020		Bt use license fees		\$1.56
Total Bales Lost:	9742	Total cost + Loss/acre:		\$70.80		eradication		\$2.25
Bales lost in \$\$\$:	85000					TOTAL		\$0.00
								\$34.43

Table 26.		TEXAS - ROLLING PLAINS				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	510000	200000	0.847	\$5.82	\$4.93	4.495	33150	
Boll/budworms	320000	150000	0.458	\$11.02	\$5.04	4.231	31200	
Cotton Fleahoppers	150000	90000	0.153	\$5.10	\$0.78	0.203	1500	
Lygus	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	35000	10000	0.019	\$12.90	\$0.24	0.101	744	
Thrips, early season	40000	8000	0.014	\$4.50	\$0.06	0.028	210	
Beet Armyworms	95000	32000	0.054	\$14.20	\$0.77	0.274	2019	
Fall Armyworms	15000	0	0.000	\$0.00	\$0.00	0.011	79	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	10000	1500	0.003	\$8.35	\$0.02	0.007	53	
Grasshoppers	92000	22000	0.045	\$5.15	\$0.23	0.218	1610	
Saltmarsh Caterpillars	15000	1500	0.003	\$7.95	\$0.02	0.015	113	
Aphids	190000	95000	0.193	\$10.25	\$1.98	0.547	4038	
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	25000	3000	0.005	\$12.00	\$0.06	0.018	131	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Percent Lost:	10.15		est. Yield per acre:	210				Cost/Acre
Total Acres:	590000							Foliar insecticide
Total Acres Harvested:	516000		Total cost and loss insect related:	\$34,868,930				At planting insecticides
Total Bales Lost:	74845		Total cost + Loss/acre:	\$59.10				Bt use license fees
Bales lost in \$\$\$:	\$25,147,920							eradication
								TOTAL
								\$16.48

Table 27.		TEXAS - HIGH PLAINS				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	1887600	552520	0.685	\$7.75	\$5.31	2.496	91863	
Boll/budworms	2150000	744277	0.584	\$11.50	\$6.72	2.266	83380	
Cotton Fleahoppers	70000	2500	0.001	\$4.80	\$0.00	0.000	0	
Lygus	1500	350	0.000	\$5.80	\$0.00	0.000	0	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	400	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	10000	1200	0.000	\$15.50	\$0.01	0.000	0	
Thrips, early season	1492640	300000	0.124	\$4.85	\$0.60	0.432	15890	
Beet Armyworms	369170	18458	0.008	\$12.85	\$0.10	0.015	561	
Fall Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
European Cornborers	500	200	0.000	\$11.50	\$0.00	0.000	0	
Stink Bugs	0	0	0.000	\$0.00	\$0.00	0.000	0	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	2100000	558207	0.277	\$7.85	\$2.17	0.694	25550	
Bandedwing Whiteflies	7000	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	250000	1000	0.000	\$8.80	\$0.00	0.000	0	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Percent Lost:	5.90		est. Yield per acre:	575				Cost/Acre
Total Acres:	2420000							Foliar insecticide
Total Acres Harvested:	2420000		Total cost and loss insect related:	\$130,410,736				At planting insecticides
Total Bales Lost:	217245		Total cost + Loss/acre:	\$53.89				Bt use license fees
Bales lost in \$\$\$:	\$72,994,288							eradication
								TOTAL
								\$23.73

Table 28.		TEXAS - SOUTHERN ROLLING PLAINS				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	320000	0	0.000	\$0.00	\$0.00	1.032	2167	
Boll/budworms	320000	200000	0.645	\$11.00	\$7.10	5.161	10833	
Cotton Fleahoppers	20000	0	0.000	\$0.00	\$0.00	0.000	0	
Lygus	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	1000	0	0.000	\$0.00	\$0.00	0.000	0	
Thrips, early season	1000	700	0.002	\$4.00	\$0.01	0.001	2	
Beet Armyworms	50000	1000	0.003	\$11.00	\$0.04	0.000	0	
Fall Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	0	0	0.000	\$0.00	\$0.00	0.000	0	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	136000	19000	0.123	\$7.00	\$0.86	0.329	691	
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	500	0	0.000	\$0.00	\$0.00	0.000	0	
Percent Lost:	6.52		est. Yield per acre:	240		Foliar insecticide	\$8.00	Cost/Acre
Total Acres:	310000					At planting insecticides	\$0.27	
Total Acres Harvested:	310000		Total cost and loss insect related:	\$10,649,419		Bt use license fees	\$2.98	
Total Bales Lost:	13692		Total cost + Loss/acre:	\$34.35		eradication	\$8.26	
Bales lost in \$\$\$:	\$4,600,619					TOTAL	\$19.51	

Table 29.		TEXAS - LOWER RIO GRANDE VALLEY				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	200000	150000	4.500	\$7.50	\$33.75	1.000	2417	
Boll/budworms	200000	10000	0.050	\$9.00	\$0.45	0.000	0	
Cotton Fleahoppers	200000	10000	0.050	\$6.50	\$0.33	0.000	0	
Lygus	25000	5000	0.025	\$7.00	\$0.18	0.000	0	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	50000	5000	0.025	\$8.50	\$0.21	0.000	0	
Thrips, early season	200000	10000	0.050	\$7.00	\$0.35	0.000	0	
Beet Armyworms	10000	1000	0.005	\$11.00	\$0.06	0.000	0	
Fall Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	0	0	0.000	\$0.00	\$0.00	0.000	0	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	200000	20000	0.100	\$6.00	\$0.60	0.000	0	
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	75000	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	150000	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	200000	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	10000	5000	0.025	\$10.00	\$0.25	0.000	0	
Percent Lost:	1.00		est. Yield per acre:	413		Foliar insecticide	\$36.17	Cost/Acre
Total Acres:	200000					At planting insecticides	\$0.70	
Total Acres Harvested:	175000		Total cost and loss insect related:	\$8,505,500		Bt use license fees	\$1.60	
Total Bales Lost:	2417		Total cost + Loss/acre:	\$42.53		eradication	\$0.00	
Bales lost in \$\$\$:	\$812,000					TOTAL	\$38.47	

Table 30.		TEXAS - FAR WEST				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	71108	42995	0.525	\$7.00	\$3.67	3.864	8174	
Boll/budworms	150880	49380	0.603	\$10.00	\$6.03	3.224	6821	
Cotton Fleahoppers	1500	300	0.002	\$8.00	\$0.01	0.009	19	
Lygus	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	144366	50959	0.778	\$7.00	\$5.44	6.786	14358	
Spider Mites	0	0	0.000	\$0.00	\$0.00	0.000	0	
Thrips, early season	0	0	0.000	\$0.00	\$0.00	0.000	0	
Beet Armyworms	13646	2500	0.015	\$20.00	\$0.31	0.150	317	
Fall Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	1200	850	0.005	\$7.00	\$0.04	0.007	16	
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	11835	7167	0.070	\$7.50	\$0.53	0.036	76	
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Percent Lost:	14.08		est. Yield per acre:	432				Cost/Acre
Total Acres:	163800							Foliar insecticide \$16.03
Total Acres Harvested:	163066	Total cost and loss insect related:		\$12,861,777				At planting insecticides \$0.01
Total Bales Lost:	29782	Total cost + Loss/acre:		\$78.52				Bt use license fees \$1.39
Bales lost in \$\$\$:	\$10,006,910							eradication \$0.00
								TOTAL \$17.43

Table 31.		TEXAS - SOUTH CENTRAL				Cotton insect losses - 1996		
PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost	
Boll Weevils	270600	240000	2.217	\$6.00	\$13.30	5.000	22550	
Boll/budworms	270600	180000	2.328	\$8.50	\$19.79	5.000	22550	
Cotton Fleahoppers	270600	100000	0.370	\$5.50	\$2.03	2.000	9020	
Lygus	270600	40000	0.148	\$5.50	\$0.81	0.500	2255	
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0	
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0	
Spider Mites	30000	10000	0.037	\$8.00	\$0.30	0.055	250	
Thrips, early season	150000	30000	0.111	\$5.50	\$0.61	0.277	1250	
Beet Armyworms	80000	5000	0.037	\$8.50	\$0.31	0.089	400	
Fall Armyworms	40000	3000	0.011	\$7.50	\$0.08	0.000	0	
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Stink Bugs	0	0	0.000	\$0.00	\$0.00	0.000	0	
Grasshoppers	10000	0	0.000	\$0.00	\$0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0	
Aphids	180000	50000	0.185	\$6.00	\$1.11	0.798	3600	
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0	
Sweet Potato Whiteflies	75000	10000	0.000	\$0.00	\$0.00	0.000	0	
Soybean Loopers	60000	0	0.000	\$0.00	\$0.00	0.000	0	
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0	
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0	
Cutworms	10000	1000	0.004	\$5.50	\$0.02	0.000	0	
Percent Lost:	13.72		est. Yield per acre:	630				Cost/Acre
Total Acres:	270600							Foliar insecticide \$38.37
Total Acres Harvested:	240600	Total cost and loss insect related:		\$33,921,500				At planting insecticides \$3.30
Total Bales Lost:	61875	Total cost + Loss/acre:		\$125.36				Bt use license fees \$6.86
Bales lost in \$\$\$:	\$20,790,000							eradication \$0.00
								TOTAL \$48.53

Table 32.

VIRGINIA

Cotton insect losses - 1996

PEST	Acres Infested	Acres Treated	# Insect Applic	Cost of 1 Appl	Cost/acre	% Yield Loss	Bales Lost
Boll Weevils	14	0	0.000	\$0.00	\$0.00	0.000	0
Boll/budworms	103000	103000	1.000	\$11.00	\$11.00	2.000	3948
Cotton Fleahoppers	0	0	0.000	\$0.00	\$0.00	0.000	0
Lygus	0	0	0.000	\$0.00	\$0.00	0.000	0
Cotton Leaf perforators	0	0	0.000	\$0.00	\$0.00	0.000	0
Pink Bollworms	0	0	0.000	\$0.00	\$0.00	0.000	0
Spider Mites	0	0	0.000	\$0.00	\$0.00	0.000	0
Thrips, early season	20600	20000	0.194	\$6.00	\$1.17	0.200	395
Beet Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0
Fall Armyworms	0	0	0.000	\$0.00	\$0.00	0.000	0
European Cornborers	0	0	0.000	\$0.00	\$0.00	0.000	0
Stink Bugs	1000	0	0.000	\$0.00	\$0.00	0.002	5
Grasshoppers	0	0	0.000	\$0.00	\$0.00	0.000	0
Saltmarsh Caterpillars	0	0	0.000	\$0.00	\$0.00	0.000	0
Aphids	0	0	0.000	\$0.00	\$0.00	0.000	0
Bandedwing Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0
Sweet Potato Whiteflies	0	0	0.000	\$0.00	\$0.00	0.000	0
Soybean Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0
Cabbage Loopers	0	0	0.000	\$0.00	\$0.00	0.000	0
Western Flower Thrips	0	0	0.000	\$0.00	\$0.00	0.000	0
Cutworms	0	0	0.000	\$0.00	\$0.00	0.000	0
Percent Lost:	2.20		est. Yield per acre:	710		Foliar insecticide	Cost/Acre
Total Acres:	103000					At planting insecticides	\$12.17
Total Acres Harvested:	102000		Total cost and loss insect related:	\$4,547,314		Bt use license fees	\$14.00
Total Bales Lost:	4348		Total cost + Loss/acre:	\$44.15		eradication	\$0.00
Bales lost in \$\$\$:	\$1,460,914					TOTAL	\$3.80
							\$29.97